

PATENT COOPERATION TREATY

**PCT**

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

From the INTERNATIONAL BUREAU

To:

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1-5-9 Kanazawa, Tokushima-shi, Tokushima
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JAPON

Date of mailing (day/month/year) 23 November 2006 (23.11.2006)	
Applicant's or agent's file reference 8684PC	IMPORTANT NOTIFICATION
International application No. PCT/JP2005/008074	International filing date (day/month/year) 27 April 2005 (27.04.2005)
Applicant BIO SCIENCE CO., LTD. et al	

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
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ATTACHMENT I

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 8684PC	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2005/008074	International filing date (<i>day/month/year</i>) 27 April 2005 (27.04.2005)	Priority date (<i>day/month/year</i>) 30 April 2004 (30.04.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant BIO SCIENCE CO., LTD.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 14 November 2006 (14.11.2006)
	Authorized officer Masashi Honda e-mail: pt08@wipo.int

PATENT COOPERATION TREATY

TRANSLATION

PCT

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

Applicant's or agent's file reference

8684PC

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/008074

International filing date (day/month/year)

27.04.2005

Priority date (day/month/year)

30.04.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

BIO SCIENCE CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/008074

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material
- ☐ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☐ in written format
- ☐ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/008074

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-16	YES
	Claims		NO
Inventive step (IS)	Claims	2	YES
	Claims	1-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO
2. Citations and explanations:			
Document 1: WO 94/06307 A1 (Nippon Soda Co., Ltd.) 03 March 1994, Full text, (Family: none)			
Document 2: JP 7-289172 A (Ajinomoto Co., Inc.) 07 November 1995, Full text, & US 5676966 A1 & EP 678246 A1 & NO 951473 A & CN 1125057 A & CA 2147432 A			
Document 3: JP 57-47466 A (Asahi Denka Kogyo Kabushiki Kaisha) 18 March 1982, page 1, lines 14 to 18, lower right column (Family: none)			
Claims 1, 3, 5, 6, 8, and 12			
The inventions described in claims 1, 3, 5, 6, 8, and 12 do not appear to involve an inventive step based on documents 1 through 3.			
Document 1 describes a feed additive composition for ruminants wherein a biologically active substance that is a coating composition containing a protective agent comprising a hardened animal fat or oil, hardened vegetable oil, stearic acid, and so on, and a preservative.			
Document 2 describes the addition of lecithin to a coating composition comprising a hardened animal fat or oil, hardened vegetable oil, and so on.			
In addition, propionic acid and the like are well known as food preservatives as described in document 3.			
Thus, the addition of lecithin to a coating composition in a feed additive composition for ruminants and the use of propionic acid, well known as a preservative, could be easily conceived of by a person skilled in the art.			
Claim 2			
Document 1 is a document indicting the general technical state in the relevant technical field, and none of the documents cited in the ISR describe or suggest raising the lumen bypass rate of biologically active substance by setting the propionic acid or other antibiotic content at 0.01 to 2.0wt%.			
Claim 4			
The invention described in claim 4 does not appear to involve an inventive step based on documents 1 through 3.			
Document 2 describes the use of lysine hydrochloride as a biologically active substance.			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/008074

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V. 2

Claims 7 and 9

The inventions described in claims 7 and 9 do not appear to involve an inventive step based on documents 1 through 3.

In terms of mean particle size and content of biologically active substances, this is a matter of providing appropriate settings such that breakdown is made difficult when coated by a coating composition.

Claims 10 and 11

The inventions described in claims 10 and 11 do not appear to involve an inventive step based on documents 1 through 3.

Document 1 describes granulation by mixing a biologically active substance and a coating composition to make a melt solution, then atomizing this melt solution in a vacuum.

In addition, document 1 describes providing a spherical shape for a feed additive composition for ruminants.

Claims 13 and 14

The inventions described in claims 13 and 14 do not appear to involve an inventive step based on documents 1 and 2.

Bringing together the temperature of a melt solution of a biologically active substance and a coating composition and the melting temperature of the protective agent used is a matter of providing appropriate settings.

Claim 15

The invention described in claim 15 does not appear to involve an inventive step based on documents 1 and 2.

The use of well-known compositions such as taurine and betain as biologically active substances in the inventions described in document 1 is not found to be exceptionally creative.

Claim 16

The invention described in claim 16 does not appear to involve an inventive step based on documents 1 through 3.

The use of a well-known preservative such as propionic acid described in document 3 as a protective agent added to a coating composition in a feed additive composition for ruminants described in document 1 could be easily conceived of by a person skilled in the art.